

(12) **United States Patent**
Hsu et al.

(10) **Patent No.:** US 9,543,448 B1
(45) **Date of Patent:** Jan. 10, 2017

(54) **SEMICONDUCTOR STRUCTURE AND METHOD OF FORMING THE SAME**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **14/929,396**

(22) Filed: **Nov. 1, 2015**

(30) **Foreign Application Priority Data**

Aug. 26, 2015 (TW) 104127820 A

(51) **Int. Cl.**
H01L 29/10 (2006.01)
H01L 29/786 (2006.01)
H01L 29/66 (2006.01)
H01L 29/40 (2006.01)
H01L 29/45 (2006.01)

(52) **U.S. Cl.**
CPC **H01L 29/7869** (2013.01); **H01L 29/401** (2013.01); **H01L 29/45** (2013.01); **H01L 29/66969** (2013.01)

(58) **Field of Classification Search**

CPC H01L 29/7869; H01L 29/66969

USPC 257/43

See application file for complete search history.

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(57) **ABSTRACT**

The present invention provides a semiconductor structure, including a base, a patterned oxide semiconductor (OS) layer, two source/drain regions, a protective layer, a gate layer and a gate dielectric layer. The patterned OS layer is disposed on the base. Two source/drain regions are disposed on the patterned OS layer and are separated by a recess. Each source/drain region includes an inner sidewall facing the recess and an outer sidewall opposite to the inner sidewall. The protective layer is disposed on a sidewall of the patterned OS layer but is not on the inner sidewall of the source/drain region. The gate layer is disposed on the patterned OS layer, and the gate dielectric layer is disposed between the gate layer and the patterned OS layer. The present invention further provides a method of forming the same.

10 Claims, 8 Drawing Sheets

